



Figure 1

Bc28.2 MKGFFGIILSIIFVRAVSCTEDENRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS 60
Bc28.1 MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS 60
*****:*****
↑

Bc28.2 KWNTTEQVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM 120
Bc28.1 KWNTDEKVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM 120
*****:*****

Bc28.2 LYVLPNTHRELSSLKNKIDEWKKVKASDNGTNVIKNIKDDRTNTWFWAHGFKVAELNDVT 180
Bc28.1 LYVLSITHRELSSLKNKIDEWKKVKASEDGTKVIQNIKDDRTNTWFWAHGFKVAELNDVT 180
****. *****:***:*****

Bc28.2 LEKLATVVKKLVSHKDMKYINKVMKKYFDRQKKE-AERLTKKAEGMSGGKYKVKGY--A 237
Bc28.1 LEKLATVVNELVSHKDMIYINDAMKQNVDKWTKEESERLAMMAEQGISGAKGKKD**GFSFA** 240
*****:***** ****.***: .*: .** :***: **:*. * * .*: *
↑

Bc28.2 APSTWML----- 244
Bc28.1 GLSVISLLVAAVAVVV 256
. * . *

Figure 2

A8	MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
BcB	MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
34.01	MKGFFGIILSIIFVRAVSCTEDEKRDTVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
BcA	MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
Robin	MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
Castres	MKGFFGIILSIIFVRAVSCTEDEKRDSVVEGATSVEASLKEQIDWLAERY SADLTNKDTS	60
*****;		
A8	KWNTDEKVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
BcB	KWNTDEQVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
34.01	KWNTNEQVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
BcA	KWNTDEKVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
Robin	KWNTDEKVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
Castres	KWNTDEQVKELLNEKAVGIESRLLAIAKEFHKLKSVLCTGVNETPAHVANRVSPGDAISM	120
****;*:*****;		
A8	LYVLSITHRELSSLKNKIDEWKKVKASEDGTKVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
BcB	LYVLSITHRELSSLKNKIDEWKKVKASDNGTNVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
34.01	LYVLSITHRELSSLKNKIDEWKKVKASDNGTNVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
BcA	LYVLSITHRELSSLKNKIDEWKKVKASEDGTKVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
Robin	LYVLSITHRELSSLKNKIDEWKKVKASEDGTKVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
Castres	LYVLSITHRELSSLKNKIDEWKKVKASEDGTKVIQNIKDDRTNTWFWAHGFKVAELNDVT	180
*****;*:*****;		
A8	LEKLATVVNELVSHKDMIYINDAMKQNVDKWTKEESERLAMMAEQGISGAKGKKDGF SFA	240
BcB	LEKLATVVNELVSHNDMIYINDAMKQNVDKWTKEESERLAMMAEQGISGAKGKKDGF SFA	240
34.01	LEKVATVVNELVSHNDMIYINDAMKQNVDKWNKE-SERLAMMAEQGISGAKGKKDGF SFA	239
BcA	LEKLATVVNELVSHKDMIYINDAMKQNVDKWTKEESERLAMMAEQGISGAKGKKDGF SFA	240
Robin	LEKLATVVNELVSHKDMIYINDAMKQNVDKWTKEESERLAMMAEQGISGAKGKKDGF SFA	240
Castres	LEKLATVVNELVSHNDMIYINDAMKQNVDKWNKE-SERLAMMAEQGISGAKGKKDGF SFA	239
:**;*****;*.*****;		
A8	GLSVISLLVAAVAVVV	256
BcB	GLSVISLLVAAVAVVL	256
34.01	GLSVISLLVAAVAVVL	255
BcA	GLSVISLLVAAVAVVV	256
Robin	GLSVISLLVAAVAVVV	256
Castres	GLSVISLLVAAVAVVL	255
*****;		

Figure 3

		5'UTR →		
			Met	
Bc28.2	AGTCGATACCTCCGAGAATAGTCTTGTATTAATCCTGTCGCTATTACAAATGAAGGGTTT	60		
Bc28.1	AGTCGATACCTCCGAGAATAGTCTTGTATTAATCCTGTCGCTATTACAAATGAAGGGTTT	60		

			Fspe3	
Bc28.2	CTTCGGAATTATTTTGTCTATTATTTTCGTTTCGTGCCGTTAGCTGCACTGAGGATGAGAA	120		
Bc28.1	CTTCGGAATTATTTTGTCCATTATTTTTCGTTTCGTGCCGTTAGCTGCACTGAGGATGAGAA	120		

		→		
Bc28.2	CAGGGATAGTGTCTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180		
Bc28.1	AAGGGATAGTGTCTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180		

Bc28.2	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAAGACACTTCAAAATGGAATAC	240		
Bc28.1	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAAGACACTTCAAAATGGAATAC	240		

Bc28.2	CGAAGAGCAGGTGAAGGAGCTGTTAAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300		
Bc28.1	CGACGAGAAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300		
	*** **			
Bc28.2	TGCCATTGCTAAGGAGTTCACAAATTGAAGTCCGTTCTGTGCACCGGTGTCAACGAAAC	360		
Bc28.1	TGCCATTGCTAAGGAATTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360		

Bc28.2	TCCCGCTCATGTCGCTAACAGGGTGTCAACCGGAGACGCCATCTCCATGCTTTACGTGCT	420		
Bc28.1	TCCCGCTCATGTCGCTAACAGGGTGTCAACCGGAGACGCCATCTCCATGCTCTACGTGCT	420		

			pr 3 →	
Bc28.2	TCCTAACACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT	480		
Bc28.1	TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT	480		
	* **			
Bc28.2	CAAGGCATCTGACAATGGCACCAATGTGATCAAAAATATCAAGGACGACAGGACTAACAC	540		
Bc28.1	CAAGGCATCTGAAGATGGCACCAAGTGATCAAAAATATCAAGGACGACAGGACTAACAC	540		

		Cons3.1 →		
Bc28.2	CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTAACCCCTTGAGAACT	600		
Bc28.1	CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTCACCCCTTGAGAACT	600		

Bc28.2	TGCAACAGTGGTTAAAAAATTGGTGTCCACAAAGATATGAAATACATTAACAAAGTTAT	660		
Bc28.1	TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT	660		

Bc28.2	GAAAAAATATTTTGACAGGCAGAAAAAGGAGG--CTGAAAGATTGACCAAAAAGGCCGA	717		
Bc28.1	GAAGCAAAACGTTGATAAATGGACCAAGGAGAGTCTGAAAGATTGGCCATGATGGCTGA	720		
	*** **			
Bc28.2	GAAGGGTATGTCTGGAGGTAAGTATAAGGTGAAAGGTTATGCAGCCCCCTCTACTTGGAT	777		
Bc28.1	ACAGGGTATATCTGGAGCCAAGGGTAAGAAGGATGATTCTCATTCGCCGGT-CTTAG-T	778		

Figure 3 Cont'd.

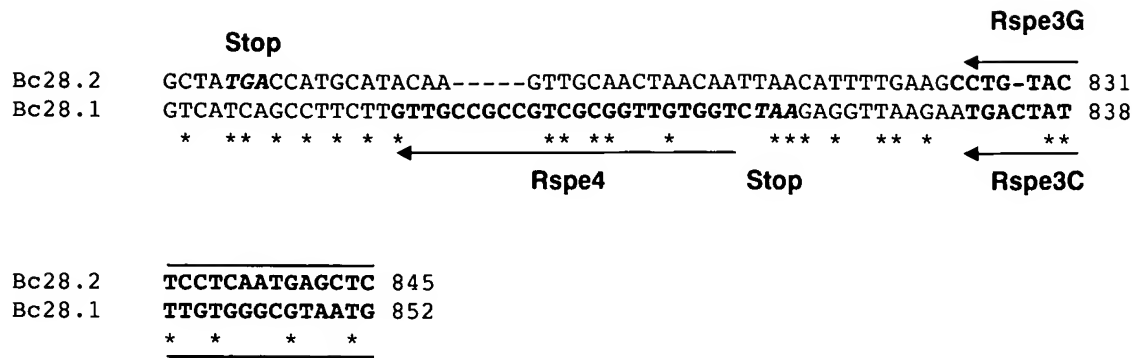


Figure 4

	5'UTR	Met	
A8	AGTCGATACCTCCGAGAATAGTCTTGTTATTAATCCTGTCGCTATTACACAATGAAGGGTTT	60	
BcB	AGTCGATACCTCCGAGAATAGTCTTATATTAATCTTGCCGCTATTACACAATGAAGGGTTT	60	
34.01	AGTCGATACCTCCGAGAATAGTCTTATATTAATCTTGCCGCTATTACACAATGAAGGGTTT	60	
Castres	AGTCGATACCTCCGAGAATAGTCTTATATTAATCTTGCCGCTATTACACAATGAAGGGTTT	60	
Robin	AGTCGATACCTCCGAGAATAGTCTTGTTATTAATCCTGTCGCTATTACACAATGAAGGGTTT	60	
BcA	AGTCGATACCTCCGAGAATAGTCTTGTTATTAATCCTGTCGCTATTACACAATGAAGGGTTT	60	

		Fspe3	
A8	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	
BcB	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	
34.01	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	
Castres	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	
Robin	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	
BcA	CTTCGGAATTATTTTGTCCATTATTTTGTTCGTCGCGTTAGCTGCACTGAGGATGAGAA	120	

A8	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	
BcB	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	
34.01	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	
Castres	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	
Robin	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	
BcA	AAGGGATAGTGTTCGTCGAGGGCGCTACGTCCGTTGAAGCCAGCTTAAAGGAGCAGATCGA	180	

A8	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	
BcB	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	
34.01	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	
Castres	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	
Robin	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	
BcA	CTGGCTCGCTGAACGTTATTCCGCTGACTTGACTAACAAGACACTTCAAATGGAATAC	240	

A8	CGACGAGAAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
BcB	CGACGAGCAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
34.01	CAACGAGCAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
Castres	CGACGAGCAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
Robin	CGACGAGAAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
BcA	CGACGAGAAGGTGAAGGAGCTGTTGAATGAGAAGGCTGTTGGCATAGAGTCTCGCCTTCT	300	
	* *****		
A8	TGCCATTGCTAAGGAATTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	
BcB	TGCCATTGCTAAGGAATTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	
34.01	TGCCATTGCTAAGGAGTTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	
Castres	TGCCATTGCTAAGGAGTTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	
Robin	TGCCATTGCTAAGGAATTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	
BcA	TGCCATTGCTAAGGAATTCCACAAATTGAAGTCCGTTCTGTGCACCGGCGTCAACGAAAC	360	

A8	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGACGCCATCTCCATGCTCTACGTGCT	420	
BcB	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGACGCCATCTCCATGCTTTACGTGCT	420	
34.01	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGACGCCATCTCCATGCTTTACGTGCT	420	
Castres	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGATGCCATCTCCATGCTTTACGTGCT	420	
Robin	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGACGCCATCTCCATGCTCTACGTGCT	420	
BcA	TCCCGCTCATGTCGCTAACAGGGTGTCACCCGGAGACGCCATCTCCATGCTCTACGTGCT	420	

Figure 4 Cont'd.

A8 TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480
 BcB TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480
 34.01 TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480
 Castres TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480
 Robin TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480
 BcA TTCTATCACTCACAGGGAATTGTCTAGCCTTAAGAATAAGATCGATGAATGGAAGAAGGT 480

A8 CAAGGCATCTGAAGATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540
 BcB CAAGGCATCTGACAATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540
 34.01 CAAGGCATCTGACAATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540
 Castres CAAGGCATCTGAAGATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540
 Robin CAAGGCATCTGAAGATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540
 BcA CAAGGCATCTGAAGATGGCACCAGGATGATCCAAAATATCAAGGACGACAGGACTAACAC 540

Cons3.1

A8 CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTCACCCTTGAGAACT 600
 BcB CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTAACCCTTGAGAACT 600
 34.01 CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTAACCCTTGAGAACT 600
 Castres CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTAACCCTTGAGAACT 600
 Robin CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTCACCCTTGAGAACT 600
 BcA CTGGTTCGTTGCCCATGGATTCAAGGTAGCTGAGCTCAACGATGTCACCCTTGAGAACT 600

A8 TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660
 BcB TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660
 34.01 TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660
 Castres TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660
 Robin TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660
 BcA TGCAACAGTGGTTAACGAATTGGTGTCCACAAAGATATGATTTACATTAACGACGCTAT 660

A8 GAAGCAAACGTTGATAAATGGACCAAGGAGGAGTCTGAAAGATTGGCCATGATGGCTGA 720
 BcB GAAGCAAACGTTGATAAATGGACCAAGGAGGAGTCTGAAAGATTGGCCATGATGGCTGA 720
 34.01 GAAGCAAACGTTGATAAATGGAACAAGGAG---TCTGAAAGATTGGCCATGATGGCTGA 717
 Castres GAAGCAAACGTTGATAAATGGAACAAGGAG---TCTGAAAGATTGGCCATGATGGCTGA 717
 Robin GAAGCAAACGTTGATAAATGGACCAAGGAGGAGTCTGAAAGATTGGCCATGATGGCTGA 720
 BcA GAAGCAAACGTTGATAAATGGACCAAGGAGGAGTCTGAAAGATTGGCCATGATGGCTGA 720

A8 ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 780
 BcB ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 780
 34.01 ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 777
 Castres ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 777
 Robin ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 780
 BcA ACAGGGTATATCTGGAGCAAAGGGTAAGAAGGATGGATTCTCATTCGCCGGTCTTAGTGT 780

Rspe4

Stop

Rspe3C

A8 CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGGATGACTATTT 840
 BcB CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGGATGACTATTT 840
 34.01 CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGGATGACTATTT 837
 Castres CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGGATGACTATTT 837
 Robin CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGGATGACTATTT 840
 BcA CATCAGCCTTCTTGTTGCCGCCGTCGCGGTTGTGGTCTAAGAGGTTAAGAATGACTATTT 840

Figure 4 Cont'd.

	Rspe3C	
A8	GTGGGCGTAATG	852
BcB	GTGGGCGTAATG	852
34.01	GTGGGCGTAATG	849
Castres	GTGGGCGTAATG	849
Robin	GTGGGCGTAATG	852
BcA	GTGGGCGTAATG	852

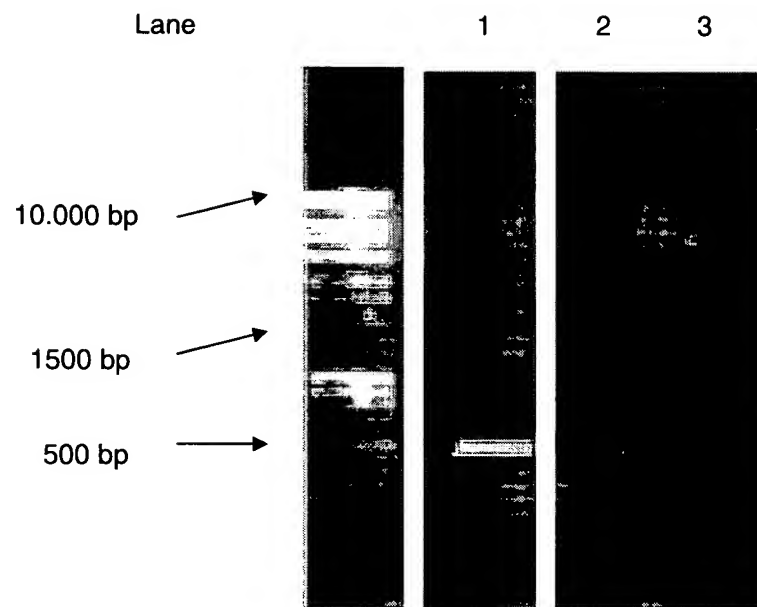
Figure 5

Figure 6

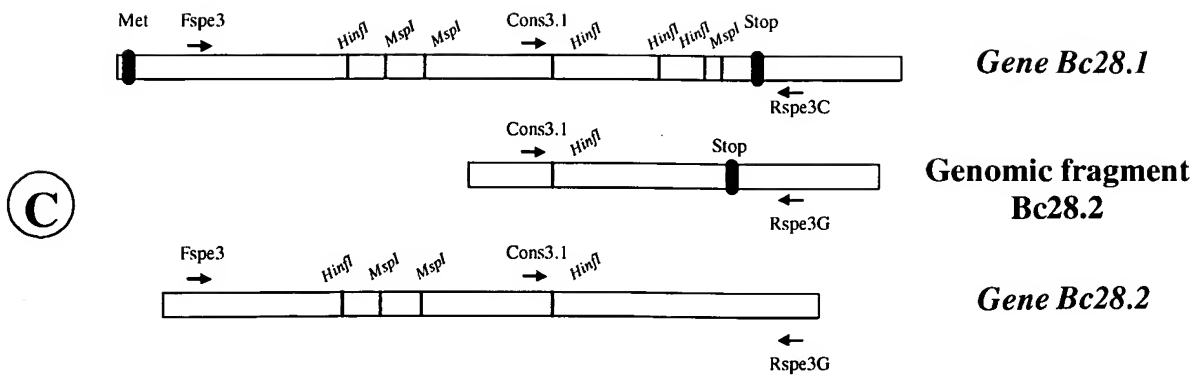
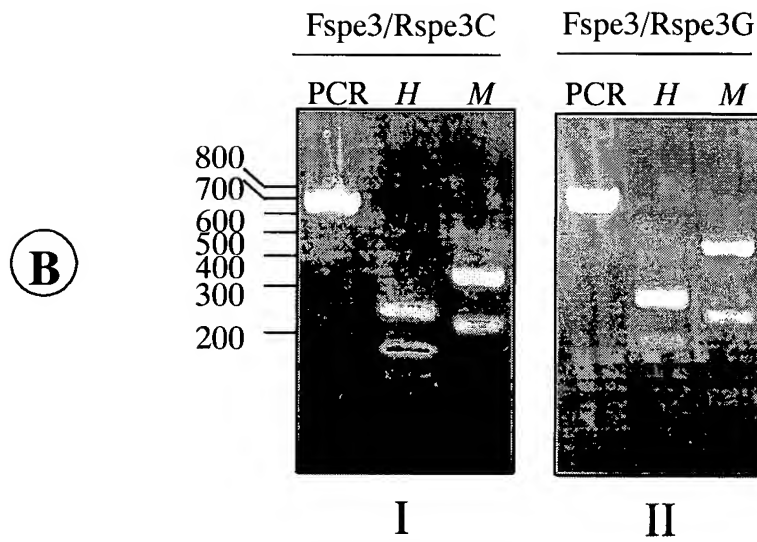
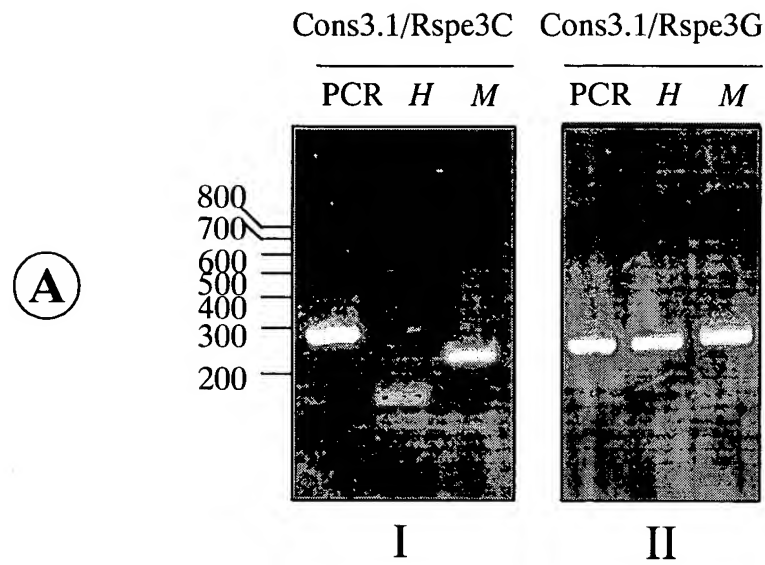


Figure 7

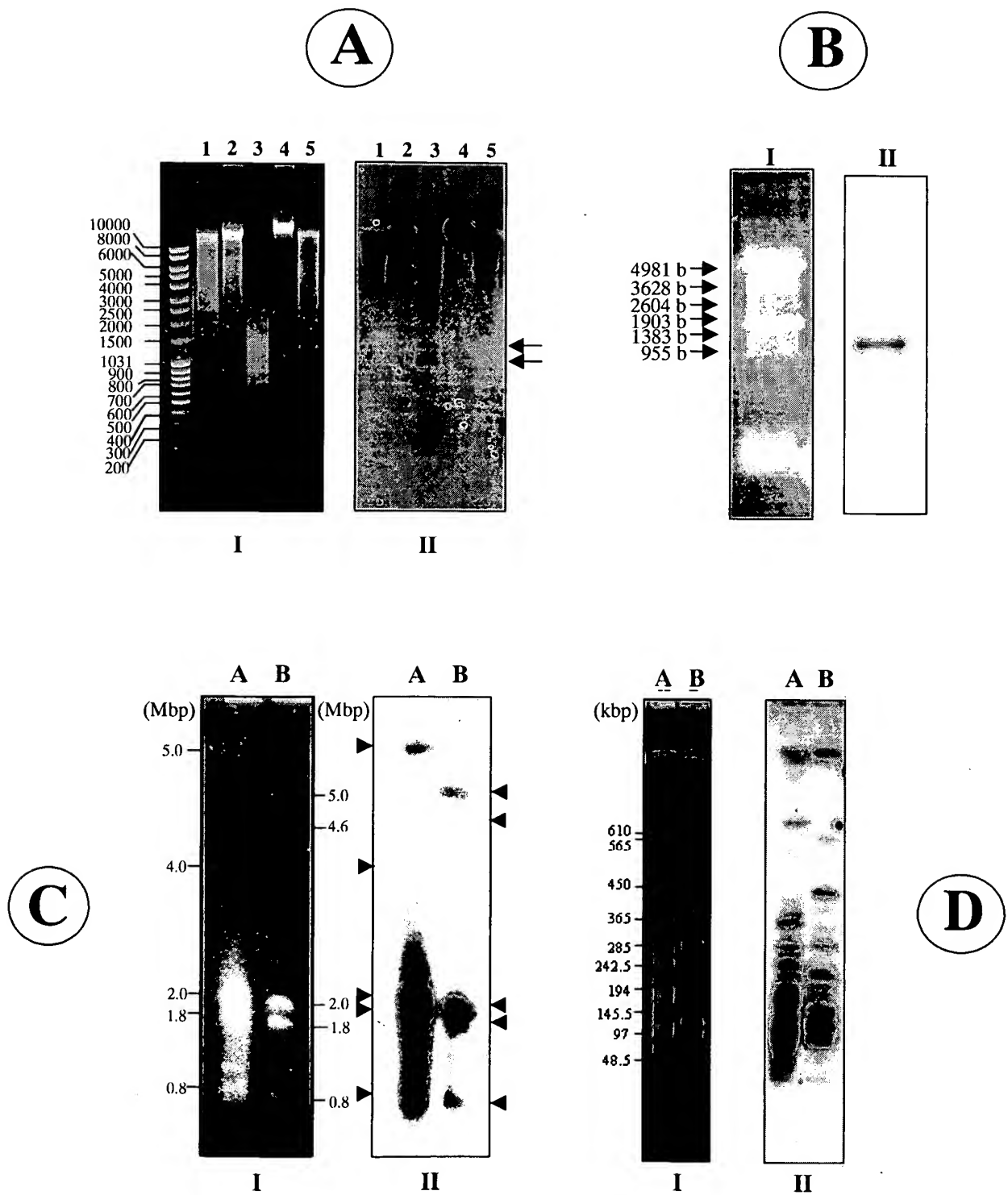


Figure 8

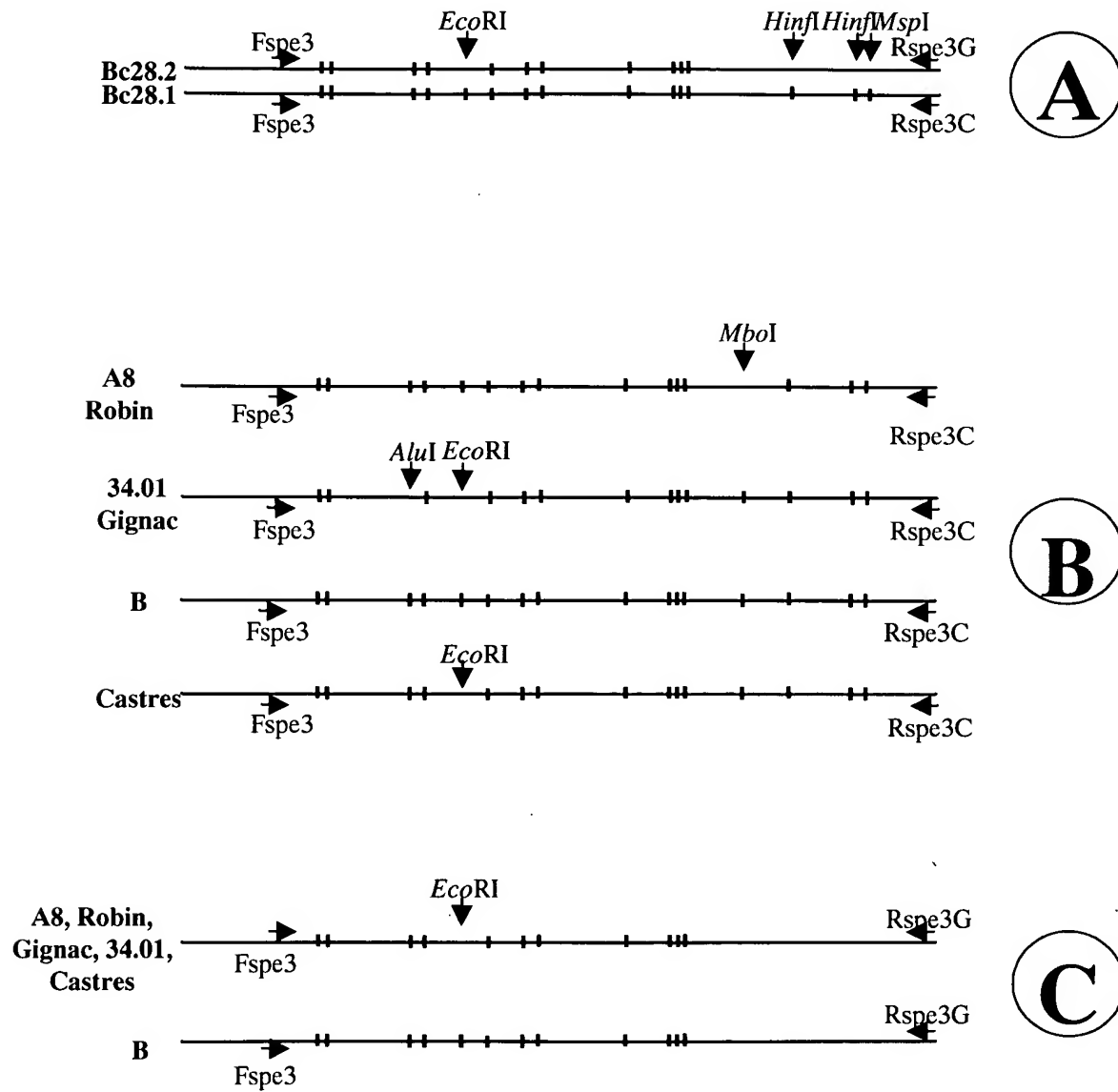


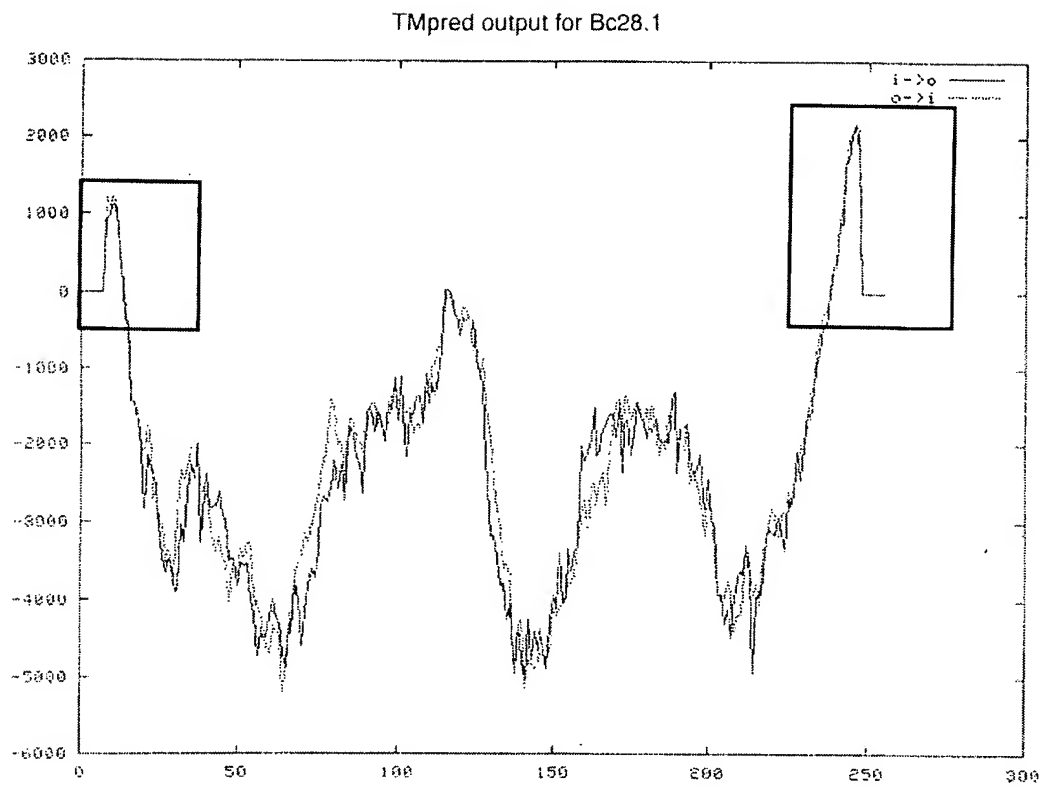
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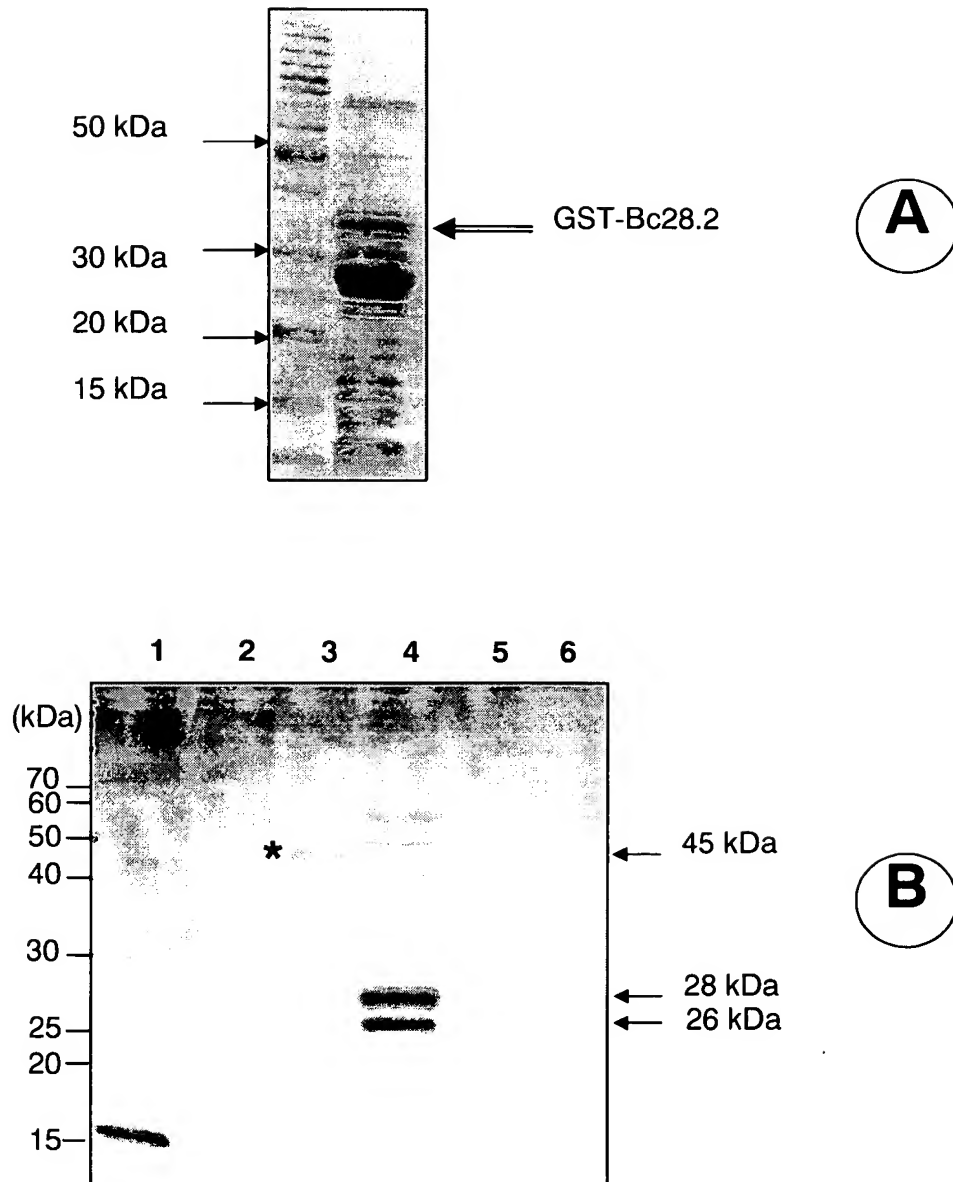
Figure 10

Figure 11

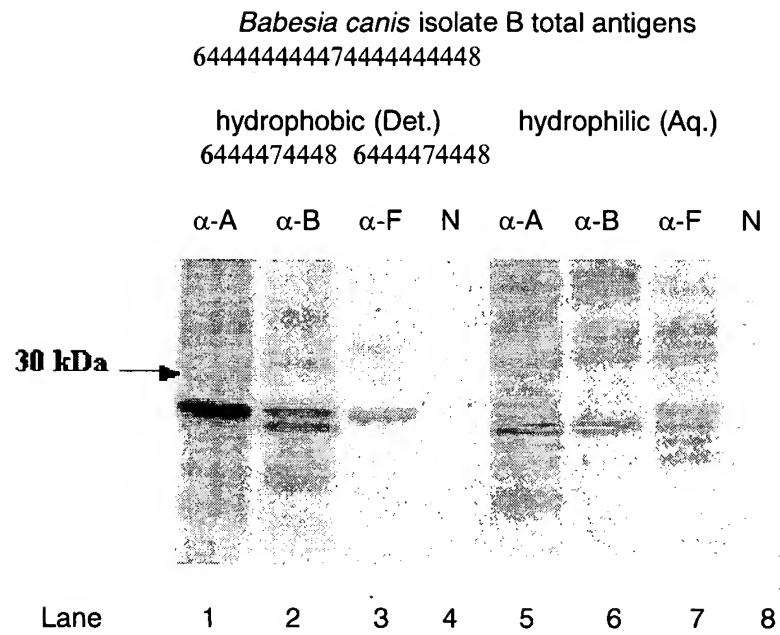


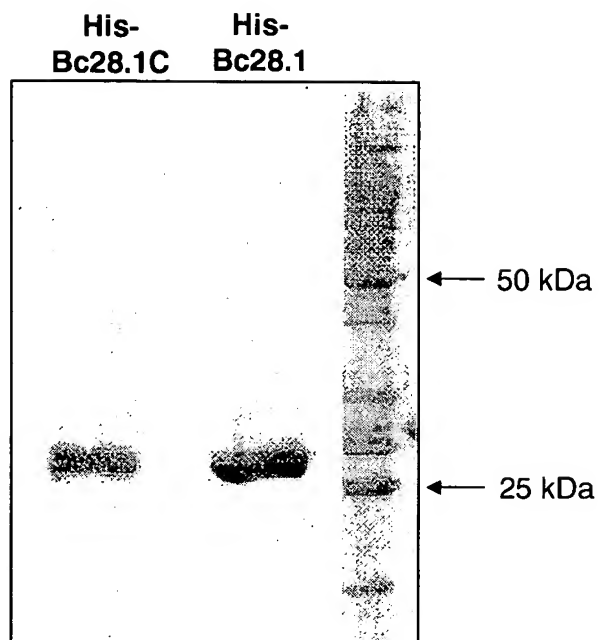
Figure 12

Figure 13

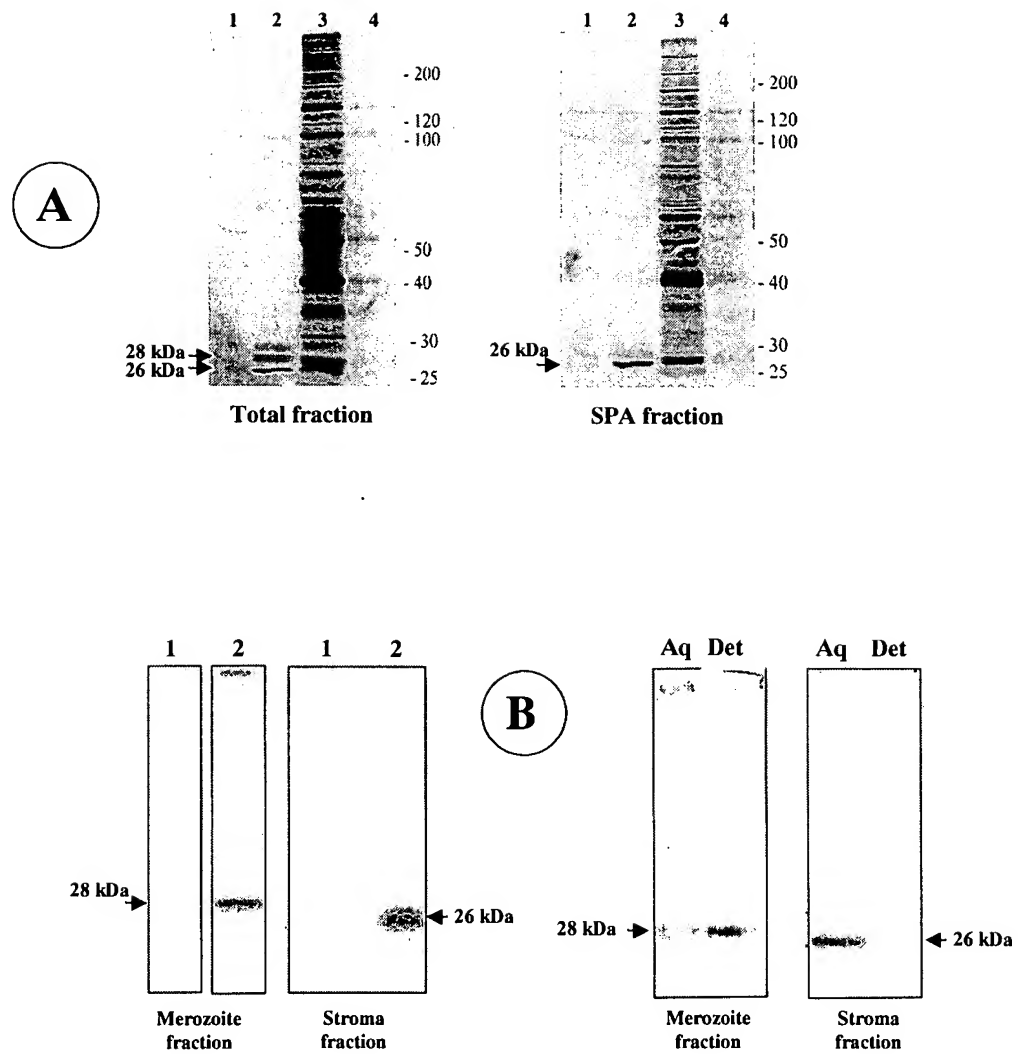


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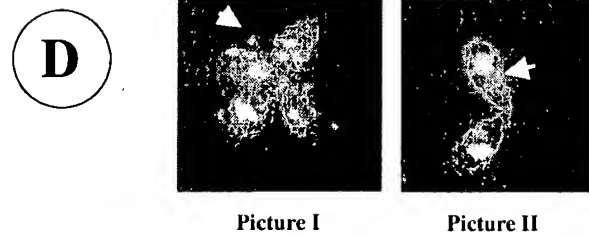
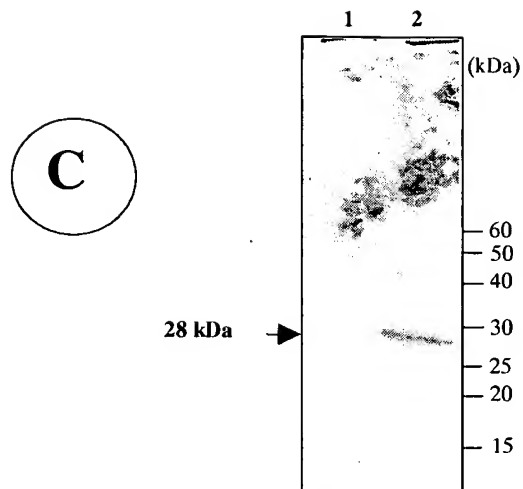


Figure 14

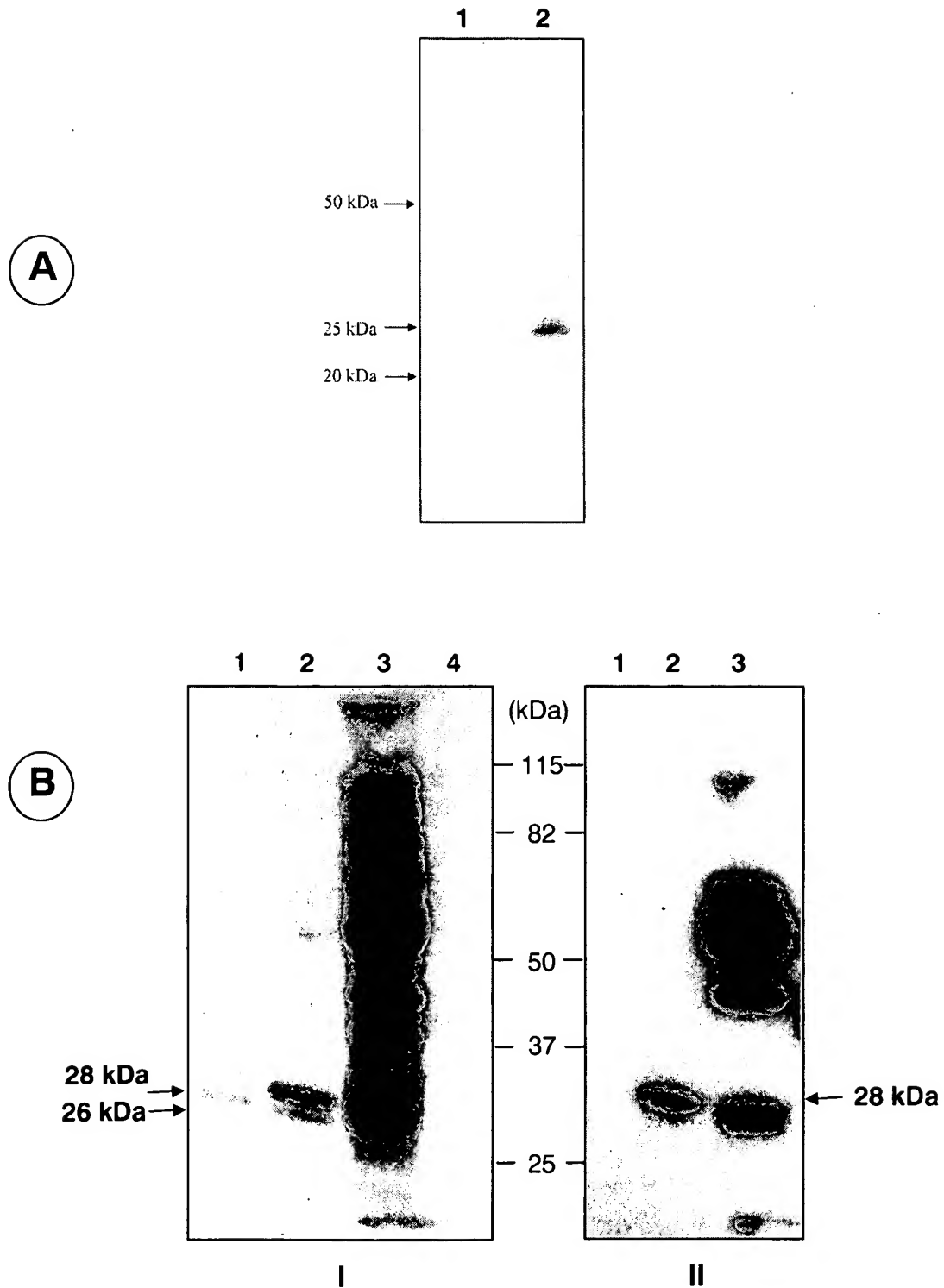


Figure 15